

REMARKS

Reconsideration and allowance of this application, as amended, is respectfully requested.

This Amendment is in response to the Office Action dated September 21, 2004.

Following the Office Action, an interview was conducted on February 3, 2005 between the Examiner, Michelle Crowell, her supervisor, Gregory Mills and the undersigned attorney regarding the Office Action and the cited prior art. Appreciation is expressed to Ms. Crowell and Mr. Mills for their courtesy and helpfulness during the course of the interview.

During the interview, the amending of claim 51 in the manner presented herein was discussed. In particular, agreement was reached that, if claim 51 was amended in the manner presented here, to define the feature of means for applying a high frequency signal between the pair of electrodes having a gap of 30 to 100 mm and for setting an atmosphere pressure inside the vacuum processing chamber to 0.4 Pa to 4.0 Pa to generate a plasma with a density of $5 \times 10\text{cm}^{-3}$ to $5 \times 10^{11}\text{cm}^{-3}$ between the electrodes, the rejections set forth against the claims in the September 21, 2004 Office Action would be removed. In particular, as discussed during the interview, although the primary reference to Ohmi teaches a high frequency electric power source of 100 MHz – 250 MHz, it is not at all inherent that the resulting plasma density will fall within the range defined by claim 51. Instead, as discussed during the interview, a number of other factors are involved in arriving at the claimed plasma density to achieve the improved results of the present invention. For example, as noted on page 36, line 24 et seq., the gas pressure is also an important

aspect of achieving the desired plasma density. As such, even though the primary reference to Ohmi contains a teaching of the high frequency electric power source between 100 MHz – 250 MHz, a wide range of plasma densities could be achieved with such a frequency range, which would be well outside the range of plasma densities defined by the present claims. Accordingly, after considering this matter further, Examiner's Crowell and Mills agreed that independent claim 51 would be allowed if amended in the manner presented herein to reflect these distinctions in terms of means plus function format. Therefore, entry of this Amendment and allowance of claim 51 is respectfully requested.

Also by the present Amendment, the other pending claims in the application have each been amended to depend either directly or indirectly, from claim 51. This includes the amending of previously independent claim 42 into a dependent format. As such, claim 42 now defines the means for decreasing the amount of fluorine in the plasma as a dependent feature of claim 51. Also, new claim 56 is added which defines the more limited pressure range discussed, for example, on page 36, line 27. In light of the further distinguishing features which these depending claims define, reconsideration and allowance of the dependent claims 42, 43, 46, 47, 50, 53, 55 and 56 is also respectfully requested.

If the Examiner believes that there are any other points which may be clarified or otherwise disposed of either by telephone discussion or by personal interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of

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this paper, including extension of time fees, to the Deposit Account No. 01-2135 (Docket No. 520.35237VX3), and please credit any excess fees to such Deposit Account.

Respectfully submitted,

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By



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